

ABSTRACT

The gas oil fraction hydrotreatment process of the invention is characterized by using a hydrorefined petroleum-based hydrocarbon oil with a sulfur content of 5-15 ppm by mass, a total aromatic content of 10-25 % by volume and a boiling point range of 150-380°C as the feed oil and subjecting the feed oil to hydrotreatment in the presence of a hydrogenation catalyst to obtain an ultralow sulfur and low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume. This hydrotreatment process allows production of a "zero sulfur" and "zero aromatic" gas oil fraction in an efficient and reliable manner without provision of special operating conditions or equipment investment.